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Please deliver this and the following pages to:

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Examiner:	**Howard V. Owens, Jr.**
U.S.P.T.O. Group Art Unit:	**1623**
Telecopier No.:	**571-273-0658**
U.S. Serial No.:	**09/408,396**
Client/Matter No.:	**GLIS-0128**
Sender's Name:	**Leslie E. Aberman**
Pages to Follow:	**29**

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COVER MESSAGE:

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Attached hereto is/are the following documents:

1) Postcard
2) Reply Transmittal; Reply Pursuant to 37 CFR §1.111
3) Combined Reissue Application Declaration and Power of Attorney by Inventors (4 separate decs with 4 separte signatures)
4) Cover Page and First Page of issued patent no. 5,672,697.

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERY OF THE MESSAGE TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL TO US AT THE ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU

PAGE 1/28 * RCVD AT 6/25/2004 10:28:54 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/24 * DNIS:2730658 * CSID:+2155683439 * DURATION (mm-ss):07-04

RECEIVED BY THE UNITED STATES PATENT AND TRADEMARK OFFICE

Paper: Reply Transmittal Letter in Duplicate with express mail sticker; Reply Pursuant to CFR §1.111; Executed Combined Reissue Application Declaration and Power of Attorney by Inventor(s) consisting of Chris Buhr, Mark Matteucci, Norbert W. Bischofberger and Brian Froehler; Original Ribbon Patent No 5,672,697; Check in the amount of $110.00 to cover one month extension fee; and Return Postcard all vial Express Mail Label No. EL999282281US.

Applicant(s):	Buhr, et al.
Title:	Nucleoside 5'-Methylene Phosphonates
Application No.:	09/408,396
Filed:	September 29, 1999
Docket No.:	GLIS-0128
Date Sent:	March 22, 2004
Sent By:	Aberman/AHampton



PATENT

DOCKET NO.: GLIS-0128

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:
BUHR et al.

Application No.: **09/408,396**

Filing Date: **September 29, 1999**

For: **Nucleoside 5'-Methylene Phosphonates**

Confirmation No.: **4009**

Group Art Unit: **1623**

Examiner: **Howard V. Owens, Jr.**

EXPRESS MAIL LABEL NO: EL999282281US
DATE OF DEPOSIT: March 22, 2004

EL999282281US

☐ MS Non-Fee ☐ MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REPLY TRANSMITTAL LETTER

☐ A Preliminary Amendment.

☒ A Reply Responsive to the Advisory Action Dated January 2, 2004.

☐ A Reply Supplemental to the Paper filed .

☐ A Substitute Specification (pages 1 -) in clean form.

☐ A substitute specification (pages 1 -) with markings.

☐ An Abstract is enclosed.

☐ replacement sheets of drawings are enclosed comprising figures .

☐ Request is hereby made to accept black and white photograph(s) in this case, as they are the only practicable medium for illustrating the claimed invention. One (1) set of black and white photographs comprising figure(s) is submitted herewith.

☐ Petition is hereby made to accept drawing(s)/photograph(s) in this case.

PAGE 3/28 * RCVD AT 6/25/2004 10:28:54 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/24 * DNIS:2730658 * CSID:+2155683439 * DURATION (mm-ss):07-04

DOCKET NO.: GLIS-0128 **PATENT**

	REMAINING AFTER AMENDMENT	HIGHEST PAID FOR	EXTRA	SMALL ENTITY RATE	SMALL ENTITY FEE	NOT SMALL ENTITY RATE	NOT SMALL ENTITY FEE
TOTAL CLAIMS	26	(20 MINIMUM) 26	0	$9 EACH	$	$18 EACH	$00
INDEP. CLAIMS	13	(3 MINIMUM) 13	0	$43 EACH	$	$86 EACH	$00
FIRST PRESENTATION OF MULTIPLE DEPENDENT				$145	$	$290	$
☒ ONE MONTH EXTENSION OF TIME				$55	$	$110	$110.00
☐ TWO MONTH EXTENSION OF TIME				$210	$	$420	$
☐ THREE MONTH EXTENSION OF TIME				$475	$	$950	$
☐ FOUR MONTH EXTENSION OF TIME				$740	$	$1480	$
☐ FIVE MONTH EXTENSION OF TIME				$1005	$	$2010	$
☐ LESS ANY EXTENSION FEE ALREADY PAID				minus	($)	minus	($)
☐ TERMINAL DISCLAIMER				$55	$	$110	$
☐ OTHER FEE OR SURCHARGE AS FOLLOWS:							
TOTAL FEE DUE					$		$110.00

☒ A check in the amount of **$110.00** is attached. Please charge any deficiency or credit any overpayment to Deposit Account 23-3050.

☐ Please charge Deposit Account No. 23-3050 in the amount of **.00**. This sheet is attached in duplicate.

☐ Petition is hereby made under 37 CFR § 1.136(a) (fees: 37 CFR § 1.17(a)(1)-(4)) to extend the time for response to the Office Action of to and through comprising an extension of the shortened statutory period of month(s).

PAGE 4/28 * RCVD AT 6/25/2004 10:28:54 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/24 * DNIS:2730658 * CSID:+2155683439 * DURATION (mm-ss):07-04

DOCKET NO.: GLIS-0128 **PATENT**

☒ The Commissioner is hereby requested to grant an extension of time for the appropriate length of time, should one be necessary, in connection with this filing or any future filing submitted to the U.S. Patent and Trademark Office in the above-identified application during the pendency of this application. The Commissioner is further authorized to charge any fees related to any such extension of time to Deposit Account 23-3050. This sheet is provided in duplicate.

Date: March 22, 2004

Leslie E. Aberman
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PAGE 5/28 * RCVD AT 6/25/2004 10:28:54 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/24 * DNIS:2730658 * CSID:+2155683439 * DURATION (mm-ss):07-04

PATENT

DOCKET NO.: GLIS-0128
Application No.: 09/408,396
Office Action Dated: January 2, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Buhr et al.

Application No.: **09/408,396**

Filing Date: **September 29, 1999**

For: **Nucleoside 5'-Methylene Phosphonates**

Confirmation No.: **4009**

Group Art Unit: **1623**

Examiner: **Howard V. Owens Jr.**

EXPRESS MAIL LABEL NO: EL999282281US
DATE OF DEPOSIT: March 22, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REPLY PURSUANT TO 37 CFR § 1.111

In response to the Official Action dated **January 2, 2004**, reconsideration is respectfully requested in view of the amendments and/or remarks as indicated below:

- ☐ **Amendments to the Specification.**
- ☐ **Amendments to the Claims**
- ☐ **Amendments to the Drawings**
- ☒ **Remarks/Arguments** begin on page 2 of this paper.

PAGE 6/28 * RCVD AT 6/25/2004 10:28:54 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/24 * DNIS:2730658 * CSID:+2155683439 * DURATION (mm-ss):07-04

The United States of America



The Commissioner of Patents and Trademarks

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

Bruce Lehman

Commissioner of Patents and Trademarks

Marjorie v. Turner

Attest

US005672697A

United States Patent [19]

Buhr et al.

[11] Patent Number: 5,672,697

[45] Date of Patent: Sep. 30, 1997

[54] **NUCLEOSIDE 5'-METHYLENE PHOSPHONATES**

[75] Inventors: Chris Buhr, Daly City; Mark Matteucci, Burlingame; Norbert W. Bischofberger, San Carlos; Brian Froehler, Belmont, all of Calif.

[73] Assignee: Gilead Sciences, Inc., Foster City, Calif.

[21] Appl. No.: 652,978

[22] Filed: Feb. 8, 1991

[51] Int. Cl.[6] C07H 19/073; C07H 19/173

[52] U.S. Cl. 536/26.7; 536/26.8

[58] Field of Search 536/27–29, 28.2, 536/27.81, 28.5, 28.53, 28.55, 26.7, 26.8; 514/46, 47–48, 51

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(List continued on next page.)

Primary Examiner—Gary L. Kunz
Attorney, Agent, or Firm—Daryl D. Muenchau

[57] **ABSTRACT**

Novel oligonucleotides analogs and nucleoside analogs as well as methods for their synthesis are described. The oligonucleotides are useful in diagnostic and therapeutic applications. The oligonucleotides are stable to nuclease degradation.

8 Claims, No Drawings